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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 7>:

25 **gnm_7**

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-73-

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5

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 8>:

gnm_8

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 GGTGAGCCACATTCCACATTCTATCGCGGGCCGATGCCAAGCGACATTTCCGTCGGG
 CTGCCAGACTGGTCAGTAGGTTATCTGCCACGCCGTTACAGATTTTGGCAGCGTATTC
 TACTTGC CGCGCAATCAGAAAAACATCCGATTCCGGGTCAAGTTGATATGTCCATAC
 30 CGTTTGAACCGTTGCCGCGTGC GTGTCGGTCAGGACAGGATTGCCGCTTAAAGCCTGAA
 AAGTCAGCGGAGAAACAAATTCAAGTTGCCGACGGCTCATACCAACCGTAACCGAATGCC
 CTTGTTTTTTCAGCAGTCGCACCAACTCGCAAGACTTATACGCCGCAATCTGCCCGTTA
 CACCTAAAAGAAATATGTTTGCCCATTTTGACAATTTCTAATTACGAAGAAAAACAGCAG
 CGCTTATATAACAAGTACGGATACATTAGATACCGTTTGATACAAAATGCCGTCTGAG
 35 TCCCGGAGTTTCAGACAGCATATTCACAAGGCGCACCAGCCGAGGAGGAGGAGGAAG
 GATTGTTGGAGGCGGCGCAGTATTAGCAGAAATAAAAAACCTTATCCGACAGGCAATG
 AGCAATTTCCCCAAAAAATCCCGCTGAAGCAATTGACCGTTTTTCCGTGGGCGTATTA
 GTTCGGTTCTTCGCTGCTGCAGAAAGTGCCGGACAGTAAGAAAGTATAGCACAAGATGTT
 40 GGGGATATCGAGAGATATCTTGACAGGCGGAAGGAATACTTTATAATTTCGCAACGCTCTT
 TAACAAAACAGATTACCATAAGTGTGAGTGCTTGAAGTCTCACATGTTTGAAGACAG
 ACAAGATAAGTGTGAAACTTGTCCTGTGGTTTCTTTGAAGCAGACAGAAAGTTAAAA
 AGTTAGAGATTGAACATAAGAGTTTGATCTCGCTCAGATTGAACGCTGGCGGCATGCTT
 TACACATCRAAGTCGGAACGCGACGACAGAGAAGCTTGCTTCTCGGGTGGCAGTGGCGAA
 CGGGTGAGTAACATATCGGAACGTACCGAGTAGTGGGGATAACTGATCGAAAGATCAGC
 45 TAATACCGCATACGCTCTTGAGAGAGAAAGCAGGGACCTTCGGGCTTGCCTATTTCGAG
 CGGCGGATATCTGATTAGCTAGTTGGTGGGGTAAGGCCATACCAAGGCGACGATCAGTAG
 CGGGCTCGAGAGGATGATCGGCCACTGGGACTGAGACACGGCCAGCTCCTACGGGAG
 CGACAGTGGGGAAATTTGACAAATGGGCGCAAGCCTGATCCAGCCATGCCCGGTCTGTC
 AAGAACGGCCTTCGGGTGTAAAGGACTTTGTTCAGGGAAGAAAGGCTGTGCTAATATC
 50 AGCGGCTGATGACGGTACCTGAAGAAATGAAGCAGCGGCTAACTACGTGCGCAGCAGCGG
 TAATACGTAGGTGCGAGCGTTAATCGGAATTACTGGGCTTAAAGCGGGCGCAGACGGTTA
 CTTTGAAGCAGGATGTGAATCCCGGGCTCAACCGGGAACCTGCGTTCTGAATCGGTGAC
 TCGAGTGTGTCAGAGGAGGTAGAATTCCACGTGTAGCAGTGAATCGGTAGAGATGTGG
 AEGAATACCGATGGCGAAGGCAGCCTCTGGGACAACACTGACGTTCTATGCCCGAAGCG
 55 TGGGTAGCAACAGGATTAGATACCTGGTAGTCCAGCGCCTAAACAGATGTCAATTAGCT
 GTTGGGCAACCTGATTGCTTGGTAGCTAGCTAACGCGTGAATTTGACCGCTGGGAGT
 ACGGTGCGAAGATTAAACTCAAAGGAATTGACGGGACCCGCAACAGCGGTGGATGATG

TCGATTAATTGATGCAACGCGAAGAACCTTACCTGGTCTTGACATGTACGGAATcCTCC
 GAGACGAGGAGTGCCTTCGGGAGCGGTAAACACAGGTGCTGCATGGCTGTCGTGAGCTC
 GTGTCGTGAGATGTGGGTTAAGTCCCGCAACGAGCGCAACCCCTTGTCATTAGTTGCCAT
 CATTGAGTTGGGCACTCTAATGAGACTGCCGGTGACAAAGCGGAGGAAGTGGGGATGAC
 5 GTCAAGTCTCATGGCCCTTATGACCAGGGGCTTCACACCTCATACAATGGTTCGGTACAGA
 GGGTAGCCAAAGCCGAGGGCGGAGCAATCTCACAAAACCGATCGTAGTCCGGATTGCAC
 TCTGCAACTCGAGTGCATGAAGTCGGAATCGTAGTAATCGCAGGTCAGCATCTGCGGT
 GAATACGTTCCCGGGTCTGTACACACCCGCCGCTCACCCATGGGAGTGGGGATACCCAG
 AAGTAGGTAGGATAACCAACGAGGATCGGCTTACCACGGTATGCTTCATGACTGGGGTGA
 10 AGTCGTAACAACGATAGCGGTAGGGGAACCTGCGGCTGGATCACCTCCTTCTAGAGAAAG
 AAGAGGCTTTAGGCATTACACCTTATCGGTAACCTGAAAAGATGCGGAAGAAAGCTTGAG
 TGAAGCCAAGATTGCTTAAGAAGAGAATCCGGGTTGTAGCTCAGCTGGTTAGAGCAC
 CGCTTGATAAGCGTGGGGTGGAGGTTCAAGTCTCCAGACCCACCAAGAAGCGGGGCA
 TAGCTCAGTTGGTAGAGCACCTGCTTTGCAAGCAGGGGGTATCGGTTGCATCCCGTTTG
 15 CTTCCACCAATACTGTACAATCAAAACGGAAGAATGGAACAGAATCCATTACGGGGCAG
 GTCACACTTGACCAAGAACAAAATGCTGATATAATAACAGCTCGTTTTGATTGCACAG
 TAGATAGCAATATCGTACCGAGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 9>:

20 **gnm_9**

GTAGCCGGCGCAGCACAAGCCTTGCGGAGCGGCATCTGCCGAACAAGCCTCCCTCGCCGA
 AGAATCTGGGATCAGCATTGACCGCAAGTTTAAACGAGCAGCTCAAAGGCGTGTCCGCGCA
 CGATTGCGTCTAAACGCATCCTCGCGCAGCGCGCAAAACCGTCAGCGAAACCGAGTTGCG
 CGAATGACCCGCGCTAAAAACGACAACTACGTCGAGATGATTAGGCAGCTCAAACCCGA
 25 AGACGTGTATCCCGGCATTTTGCCCTGCTGGAAGCATTTAGGGCAAAACGCAAAAATAT
 CGCCCTTGCCTCCGCGCAGTAAAAACGGCCGTTCTGCTGGAACGCATGGGGCTGACCCA
 CTTCTTCGACGCCATTGCCGACCTGCGCCGTCGCACATTCCAACCCGCCCCCGACAT
 CTTCTCGCAGCGAGCGAGGGCGTAGATGCGGACATCCGCCAATGCATCGGCATTGAAGA
 CGCCGCCGCCGCGTCCGCCCATCAAAGCCGCCGGCGCTTGCCATCGCGCTGGSCAA
 30 AGCCGAAGACTTGGGCAGGCACATCGCGCTGGTCTCCGGCACCGCCGAGCTGACCTACGC
 CTACCTGCAAGCGGTGTGGGAACAGTCGGGCAGGTAAAAACCGCTCAGATAAAGTGTCAAG
 GAAGCAAAAGACCGTCTGAACAGTGTTCAGACGGCCTTTTGGCTTTAGAACAGAATGA
 TAATCCCAACTTACGCAACCCATAAAACATAATGCCAATCTCTTAACCATGCTATTCAAA
 35 TTTATTTGAACGATTTTTTTTCTAACACGCCAACCTTAAACATCACTATTAAATGGCGGC
 CGATGTTCTGTCTCCGCCCTGTATGCGGCTTGGGCGACGCGGAGGCTGCATTGAGCAGGT
 TGCGGTTTTGCTATTTCGACGCGGTGTGCGGTTGCGCTTGGTTTTGCTTCCAAGCTGCA
 GTTGGGCGATGGCGCGGCGCAGGCCGATCGTTGCGTAGGATGCCTAGATGGCTTTGGT
 TGAACGTTTTGCAGGACGGGCGGCTGAATGTGTTTTGAAGGTGCTGTGAAGAAGATGCTTG
 40 CTTGCGGCGGAGGCTTTCAGACGGCCTTTGGAATGGTTGCGCTTGAATGCTTGTCCTG
 CTCGATGGCTTGGCGCAGAGCCTTSCGGTCACGACGCATTTCGACGAGGATGCTGCG
 CAAGGCGGTTGGCTCCGTGACGCCASTGCAGGCGGTTTGCCTCAAGGCGTAGAGCTGCG
 GCAAGGAGGTTCTGCCGCAAGGGTGGTTTTGGATGCCCGCGCAGGTGATGTTTGACAGG
 GCGGCAAGGGGATGGCTTGGCGGTGATGTCTAGGCCGATTGGGATAAACAGTGTGCGAT
 45 GGATGCATGGGAATGCCGCGGCGAAGACGTCGCGGTTGATGGCTGATGTCGAGCGAGA
 CCAAGTCTTCGTTTTGTTTGGCGATTTCGGCTGCGATGGCGCGGCAACGATGTCCGCGG
 CTCGGAATTCCTCCGCGCGGTGTAATCGGCGCATAAATCGTTCCGCCGCTTGGTTGGTGA
 GGTATCCCCCTTCCGCGCGCAGGCTTCGGAATGAGGAAGGTCCGTCGTTTCGACAGC
 GTCTTGCCAAGCCTGTGGGGTGGAAATGGATAAATCGAGGTTTCCAATCGCCAGCCCTG
 CGCCTATCGCCATGCCGATGGCGTCCGCCGTGCTTCCGCGGCGGTGGTGTGGCGGCGT
 50 AAATCTGTCCCAAGCCGCCCTGCGAGTACCGTATGGCGGGCGCGGATGCGGTTAGGTTT
 CTTGTTTCGSCAGTCAGGACGGTCACTCCGACCGCCGCTGATTGGTTTTGAATGT
 CCAACGCCATCTGCCGCTCGCAACCGGATGTTCCGGCGCGCGCGTATTGGGCAATCA
 GCCTCTCCATACGCGCTTCCGCCGTGTAGTCGGCGACGTGGCGGATTTCGCGGAGGAT

GCCCGCCTTCACGCGTCAGGTGCAGGCCGTTATGATTCCGGTCGAACGCCACGCCCTTGG
 CCAGACGCCATTCGATTGCCGGTTTGGCCCTGCGACAGGATGGCGCGGACGGCGGCTTCAT
 CACACAAACCCCGCCCGCTTCCAAAGTATCGGCAACGTTGTTTTCGATGCTGCTCTCTC
 CGCAGCCAGCCCGCGCAATCCCGCTTGGCGCATGACGGCTGGCGGGTTCGTCACGCGCT
 5 TTTTCCACAAAATAACGATGCGGAACGATTACGACGCGACAGGGCGACGCTCGTGGCGG
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 TGAGAAAGCACCCAGCCAGCAAAATCAACCGATGCTGCACAAATCCCAATGAATCAGCTT
 10 TCTCACCGAAAAACACACGCTGACTAAAGCCGTTAAACCAGTCCACGCGCTGCCAAA
 TGCGGTATGCTGTAGCCAGCGGCATGGTTTTCAGTGTATAGACAAGGCCCAAAACACA
 CCGAAAAGCTGACTACACGCGCAATAGAAGGCCAGTTTGTCAACCCGCCACTCAGTT
 TGAGCATGTGAAGAACCGCAGACTTCGCTTAAAAATGCTACAGTCAGAAAGAGCCAGTGCA
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 AAAAACAGTCTTGTGTTAAAGATTTTTTGTGTGCAAAATCCGCTTTGGGAAAGCAGGCG
 15 GCGGATTTTTCAGGCTGCAACCATACGAACGCAAAATCAGGCGGGGCCATGCGGTTG
 AACACATCTTTTTTCTTCAGCCCTGCCGCAAAAGTCAGCATACGCTGCAAAAGCAGTTTG
 GCGGCTTCGCCACGCTTCTCTGTCCACAGGATTTTCGTTACGTCGCTTGTGACGGGGTAT
 TGTATGCGCCACGGAATTTCATCGCCATCCACGGGCAGAACGCGCAGCTTTTACAGCTT
 CCACCGTTGCCCGCGCTGCGCGGGCGATAAATTGTTGTGCGGGCGCTGCTTTTGCATT
 20 TCGTGCAGGATGCCAAATCGGTGCGCCAGATGAATTTTTTTCAGGACGCGATACGGCG
 GCTTTTGAAGCAGTTTGTGTGTCGAGCGGACACGTCGCCAGTTCGATGACGCTTTGCGG
 GATTTCAGGATGAACAGCACACCGCTTCGGGGTGTTCGCCCTTCAACGCCGCCAGCTCT
 TGCCCTTTGAATTCGTTGTGAACGATGACGAACCTGCCACACAGCATATCCGCGGCC
 GTTTCGCGGCGAGATGTAGTCGCGGAGGTGGCGGTGCGGTCCCAAAATCAGTCTTCGCGG
 25 CGTGAATTCARAATACGATACGATTCTAACGCCACGAAGAGCTTACCAACCAATCGCA
 CGCCCTTTCACGGCGCGGAAGTGTGGCGGTACACCACCCGCTTCGCGTTCGGGGTGTGG
 TCGCAAAACGCTGAAACGCTTCTTCGCGGCAACCAAAATCCAAAGAACATTCGCGCTCC
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 CGCACACAGCCACCCAGCGTACCGGCTTCGTGTTCCGACCGGAAGCGCGCATTTCC
 30 AGCGAATCGCCACGCGATCCGCCGCTCTCCAAAGCCAAATCCTGAATCAGCGGATCAACG
 TAATAATGCGCCACCAAGACCGGCTTTTCTCCTTCAGCAAGCCCTTGATTTCGTCTTC
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 TGGCAGGCGGAAGTCGGCGTTTGGATGAGTGGCATATCGTAGTCGAAGCAGCGCGCGGCG
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 35 TTTTTCAAATGTTTTTACATTATGCTCAACTTGAGTATAATATGCAAGGTCTGCTGAA
 ACAGCTTTGCAATACCGTAAACCGACCCGCTTCGTTCCGACAAACGCTTTGGTTTACA
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 40 ATTCTTTCAGGCGAGCGTAAACCTGTGGGTGCCAACGAGACTTCGACGCTTATGGGCT
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 45 AAGTGGCGCAAAAGCGGCTCAAGCGCATTCATTGTGCTGGGGGTGGAACCGGAAACT
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 AAGCCGCGGAGCGGACGCAAACTTCGACTTCGCGCTACGGGGCAGCCATGAGCCAGC
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 50 AAGCCATCAGCGGCGAGTTGCTGCACAAGCAAAACTCCGCCCGCAGATTACAGCGCAAA
 ACCTCATCGAGCGCTCGGATACCGGCGTATCGGGCAGCAAGAGCCGCTCCCGCGAGCTTT
 GCGGCTTCGCGACGAGCTCTCCCGCAGGCTGATTTCGGACATCGGACTGCGGCTGCG
 GCAGCGCTTAGCCGCTTTTCAGACGACTATAGTGGATTAAACAAAATCAGGACAGGCG
 ACGAAGCGCGACAGCTACAAATAGTACGGAAACGATTCACTTGTGCTGAGCACTTA
 55 GAGATCGTCTCTTTGAGCTAAGCGGAGGCAACGCCGTACCGGTTTTTGTAAATGAAG
 TTTTGGCCCATCGGTGCACATCAATCTTTTTCAACAAAGGAAACCCCATCGCTGTGA
 AAAACCTCTTTCCCTGCCGCAACCTGTTGCGCCCATAGTAGAACAGCTTTGAGC

GAAGACTTTGGGCAGCGCGCGCATATTACGTCGCGCGCGTCATCGCCCCGACAAAAACC
 GCCAACTCTTCCTTGTGACGCGCGAAGACGGCGCTATGCGCGGCATGGACTTGGCGCGCT
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 CCCCTGCTGCGTGTCTGCAAAAAATACGCCGTGAGGCGAGGCGCGGTGTGAGCAACCGC
 ATGGGTTTGGACGACGCGGCTGCTCATCAAAGACAACACCTCGCCTATTGCGCGAGCATC
 10 GCCCAAGCGCTGCAGCAGGCAAAACAGGCTTCGGAAGCATTGACCTGCGTGAAATCGAA
 GTGGATAGCTTGGCACAACCTGGACGAAGCCATCGCAGCGGGCGGGAACGGATTTGCTG
 GATAACATGGACGACGAAACCTGAAAGAGCGGCAAAACGCTGCCACAGCAAAACCGCC
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 15 TTGGACATAGGTTTGATTTCGTGCGGTGAGTTTAGGGTGGGGCGGCTGCTCATATG
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 20 GGAAGAGGAACATACAACTCTGTACAAATCATCCATAAATTTTGATTTAATACGATT
 ATAAAGATGAATCACAATCATCCATATCTGCCGCCGCTCAATCCGCTTGGCGGGCGGCAAA
 GGTTTATAGGAATACCGATGAACACAAATACCGCTCCACACCACTACTCAAACTATGGCGCA
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 25 GGAAGGTCTAGTCGATTTCAGCGTTACCAACCGATTATCGAATACGCGCTGGTTCCGA
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 CTTGCGGCAAAATCCGCGCGATATTTTGGTTTTCAGGAACTCAAACCTGATCAGGACAAA
 30 TTTCCGCGCGCGCTTTCGAAATGATGGGCTGGCACTGTGTTTGAGCGGGCAGAAAAAC
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 ATCAATGTCTATTGCGTCAACGGCGAGGCTTTGGACAGCCCCAAATTCAAATATAAGGAA
 CAGTGGTTTGC CGCACTGACGAGGTTTTCGCGGATGAAATGACCCGCCACGGCAAACTG
 35 STGTGCTGGGCGATTCAATATCGCGCTGCGGATGCGGACTGTTACGACCTGCAAAAA
 TGGCAGCAAAAAATCCACTGTTCGTCGTCGAACGGCAGTGGTTTCAAAACCTGCTGGAT
 TTGGGACTGACCGACAGCTGCGCCAGTCCATCCGGAAGCGCGCTTCTATACCTGGTTTC
 GACTATCGCGGCGCGATTTGCCAACGCAAACTGGGCTGCGTATGACACATATTTTGGTG
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 40 GAGCGTCGAGCGCAACGCGCGGCTGACGGCAGAAATTCGATTGGTAAAGACCGGTGTT
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 45 CGAATAAATAGAAAGCGCTCTATATATAGTAATAAATTAATAACCTGTTTTCCTTAT
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 55 AATAAGGATTATATAGAAGTATATATCTAGTAGGCATAATGSCAGCTATTACAAAAAT
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CAAATCGACGACCACACCCACACGCATTTTGACGGCAAAGCCCAAGTGGCAGACAATACT
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 CTGTGCGCACAACCGGATAGCGGGTTTGCCCGGCATTGCCCGCACCCGAGGAGAGCGGG
 5 GAAACCAAAATCAAAGCCGCTGCTTTGGCGGAAGGCTCTGCGGTGCGTAAGGCATCTGTAT
 ATGGCTACCGTGGCAGCGACACGTTTTGAACCGCTATTTCGGGATTTCCACCAACGCCCG
 CTGTCCGAGGGTAAAGCCGTATAAGGTTGCCGTACGGCATGTATGCGCAAACTGCTGACG
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 CGGCTCGATGAATCGTCAGAAATACCTGCATCGTCATTCCCGCGCAGGTGGGAATCCAGA
 10 CCGGTCGGTGGGAAACTATCAGGTAAACGGTTTCTTGAGATTTTTCGCTTTGGATTCC
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 TCGATAAATGCTGTTGCTTTTCAATTTAGATTCCCACTTTCGTGGGAATGACGGGATTT
 TAGGTTTCTGATTTTGGTTTTCTGCTTGTGGGAATGACGGGATGTAGGTTTCGTAGGA
 15 ATGACGTGGTGCAGGTTTCCGTGCGGATGGATTGCTCATTCTGCGCAGCGGGAATCCA
 GCTGTGTCGGTTTCAGTTATTTCCGATAAATGCCGTGTGCTTTTCATTTTAGATTCCCA
 CTTTCGTGGGAATGACGGTTTCAGTTGCTACGGTTACTGTCAGGTTTCGGTTATGTTGGAA
 TTTCCGGAACCTTATGAATCGTCATTCCCGCGCAGCGGCAATCTGGAATTTCAATGCCCT
 CAAGAATTTATCGGAAAAATAAAACCCCTCCGCGCTCATT

20

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 10>:

gnm_10

GTCGGTTCGGTTTTGATGACGCGTATGAAGAAGAAAACGACTTCGCCCACTTCTGTAA
 GCGTTTTCTTTACCACTTCCAACGTGCGGCGCGCAGCCCTGATTTCGGTCAGGCGGCT
 25 AAAACATTATTAGATGCCAACAAATGTTGCGGAACCTGCCAAATGGACATCATCGTTAAC
 TGCCAAAGCGCGGATTACACCAAAATCCGTCTTCCAAAGCCCTGCGCGCAGCGCGCTGAAAC
 GGCCTACTGGATTGACGCGCGCTCCTCACTGCGCATGAAAGACGACGCGATTATCGTCCCTC
 GACCCGTCAACCGCGATGCTCTGCACAAACGGTCTCAAACACGGCGTGAATAACCTACATT
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 30 TTGGTCGAATGGGCAACGACATGACCTACCAAGCCGCTTCCGGCGCGGCGCGAAAAAC
 ATGCGCGAATCATCAGCGGTATGGGCGCGTTTACGCGCCAAGTGGCGGACGCGCTTGCC
 GATCCTGCCGGCTCGATTCTCGACATCGACCGCAAGTATCCGATTTCCTGCGCAGCGAA
 GACTATCCGAAAGCCAACTTCGGCGTACCGCTCGCCGCGAGCCTGATTCCGTGGATTGAC
 GTGGATTTTGGGCAACGGCCAGTCCAAAGAAAGATGAAAGGCGCGGTGAAACCAACAAA
 35 ATCTCGGCCGCGAGCGACAATCCAAACCGTGATTGACGGCTGTGCGTCCGCTGCGGCGCG
 ATGCGCTGCCACGCAAGCCATCACTCTGAAGTTGAAAAAGACGCTCGTCTTTCCGAA
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 GCCAGATCCACGAGCTGACTCTGCGCAAAGTTACCGGCACGCTGTCCGTCCCTGTCGGA
 CGCATCCGCAACTGGCGATGGGCGGCGAATACATCAGCGCGTTTCAACGTCGGCGACCAA
 40 CTTTGTGGGGCGCTGCGCAACCGCTGCGCGCGTATTGCGTATCGTGTGGGCAAGCTTG
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 ACCCTGCCGATAAAGCCCTGCCGCGACTGCCAGCTAAAAATAAGGATTCATTTCG
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 GCGCGATTGCGGACTTCTGCTACAGCGCAAAATTCGATGAAGGCAAGCGTTTCAAGCCAGC
 45 AACATTTCCTGCTCAGCTTCATACCCCACTGCCAGCGCGCGAGCATGCCGTTCACACTG
 CCGGATTCGGGGAAACCAACAGGCGCGCGCTTCCAAATTCGCGCTGTTTTTGGCGCCGAA
 CCTGCGGCGACGCGCGCGTGTTCGGGTACAAACCAATGCGGACGCGCAGGACGCGGAGC
 CGTTGGAAGCGGTGTTCCGCATCGTCGGGAAAAATATCGGAGCGCTGGGTACAAAGATG
 ATGTGTGCAATTTTCTTCGTGTCAGGATGTCTCGCTGATACAGCACGCGCAAAATGGC
 50 GCGCGCGCCGACCGGTGTGCGCAACGCGCAGCATTTTGGCGGTTATGGCTTCAATATGCC
 GTCTGAAGCCCTGCTGCCATTCCCTATGCTTTGACGCGCGACGCTTCGACATCTGC
 ACGACGGGATAACTGATGCCCAACGGTCTATCCACATCTGATCCTCTCCGCGATCGCGT
 ATCAGCCAAAGCGTCAATCTCGAGTTCAAAACCTGATACCGCGCCGCTATTTCAG

CAGGTCCCGAGGGTAAAGGCGATGAGCAGCGAAGCGGGTACGCTCAATATGGCGCAGAC
 GGT CAGGCAGGCAAAAAATATTACCACCCCGCGCCAGCCTTCCAAACCCAAACATTTGGA
 CGCAATCAGCAGGCAGGGCAGGCAAAATCAGCAGCCACACCAAGCCCATATCGGGTTTGC
 5 CTTGGTCGGCGCAAGCCAGCCTTGCATCCGCAGCAACATAAATATGCCCAACCAACAT
 GGGCAGGATAAAGCAGCGACGACCCATGCCGCGCATTTCTGTGTTTCCGTCCACATT
 CCAATCATATTTACCCAAAACCTTATTCGGCAGCATAGTCATACTCCACGACCACGGCGG
 CATGGTCAGAAAATTTTTCATCTTTATAAACGTGTGCGGACACGGCTTTGGCAGCAAGTT
 CGGGCGTAACCATCTGATAATCGATGCGCCACCGCACATCTTTCGCATACGCCCTCCGCTC
 10 GGTGCTCCACCAAGTGTAGCTTGGCGGTTGGCATTGCCGGAAGAAAGCAGGCTGCTGT
 GAAATGTCCTCGTCCAGTCCCAATCAGCCCGTGCATATCATAAAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 11>:

gnm_11

GGAATTCGTGTCAAGCTTTCGTGTGTGAAAAATTTTGCAGTGAAACGTGGACGGGCGG
 15 TTTGACGATGACATACCACTGTTTCGGAATATCCATTTCGTCCAGCCTGTGCGCTATACC
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 CGAATCAATGAGCTGCGCTGCGTCAGACGCACTGCCACCAACGGTTCAACACGACAA
 AAGCTTGGCGCATCCGAGCTTCCGCCGCCAAAACCGGCCCTGTCCGGATTTTGTGTC
 CAGCCATATTTCCACGCGCGCGGGTTGCGCGCATATTTTTCAGCAACGATTGCGGCAAG
 20 GTAGCTCAAAATCTACTTCTGCGGCATGCCATCAACCGGATTGTGCAAGGATGATTTTGC
 TCGTCCCTCGGTTTCAAATATACGGTATCCTGCAAAATCTATCAGGCAGAAATATGGTTTC
 GATATTGTGATAACCGTCTCCCGCCTGCCGGTAATCTCAAATCGAGATTCAAGTTTTCG
 AGGTGCGGAAAAACGCTCGCGTCCGTCCGCAATATTCATCTGTCCGCTTATCTCGTGGC
 CGCCGACAGCGTTCCGGGGTTTCGGTTTCAGACGGCATACCGATTTCGGTGAAGAACAG
 25 CTTGATGTTCAAATTTCCGTTATTCAAGTTCGAACGTTGCGACTTGCCCCCACTGTCCGC
 GGTCTGCGCAGACGTCCAAACCGATTGTTTCAAATATGCGCTCCGCGAGGATCGGTAAAG
 CGCGCCGCCACACGCTGCCATCTGCCAGATATGAGATATTGGATTGGCAGTTTGA
 ACCGACAGCTGCTGCTCAATCTTCCGCACTTCCGCCCTGATAGACATTTCTTTGGCC
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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 12>:

gnm_12

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30

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 13>:

gnm_13

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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 14>:

gmn_14

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 5 TCGCTCTACCAACTGAGCTATTCCCGCCGATTTCATTCTCCGATATCGAAGAGACAC
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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 15>:

gntm_15

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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 16>:

gnm_16

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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 17>:

gnm_17

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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 19>:

gnm_19

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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 20>:

gnm_20

TGTTAACTGTTTAACTCTAACGTCAAAATATGCCGCTGTAAGGCGGAAGCCGCGCACAAA
 35 TGCAAAAACGGCAGGATAAACCCTGCGCGCAGCAACCGGGCGGTTCAGACTTTGCGGT
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 40 ATTTGGGCATTTCGGGCATACTATTGCGTATTCTTGGGAATCAGTTACAGAAAGCGGG
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 45 TCGCGCGCAGGTTGATGCCATGGCGCTTTGAAGATGTGCTGCATGAAGCCGCTGCAAT
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 CTTTCCGATGAGTTTCGTCGGCATTCGCCGCGCGCGCGGGGCTCGGTTGACGGGTA
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 50 CGATGAGTTTCGTCGGCATTGCCCGCCCGCGGCGCGGGGCTCGGTTGATGGTAAACGCG
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5 GGGGAAGCGCATCCGCGCTCCGTCTTGTGTTTTCGCGCGGACCGCAACCATATAGCGCCCATC
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 10 GGCAGCACATTTGTAACAGAAAACTATCCGCGCGCCATCCGCGCGCTTTGGGCGTGT
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 25 TTTCCGGTGGCAAGGTTGCGAGGCGCGCTTGAGGCGACGCGGACGGTTTTCGCTGTG
 CTTTCCGCGCGGTGCTAATGGCACAGGAAAAACAGATTAGCTGTTTATATTGAAGAAC
 AATTAAAGGAAAAACACAGAAAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 21>:

30 **gnm_21**

ACATATTTAGCCAAAACCTTATTCAGCAGCATAGTCATACwCCACGACCGAGCGGTGCGAT
 GGTACGAAAATTTTTCATCTTTATAAACGTGTGCGGACACGGCTTTGGCAGCAAGTTTCGG
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 35 CGAGCTTGTGGATAACCTTGCCATCCACTCGCGCTCTTCAGGCGAGAAACCTGAATTTT
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 40 CAATGCCATACCGATTTCGACATTTGTCGGGTTTGGCTTTGCTGTACACCGCCACGCGCG
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 45 AAAAGGCGCAAAATGCGGCACATTTACCCCTTTTCGATGGATTTTAAACCGCGCGCAAGTC
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 CATATCGGCAGAGTCGCGCATCCGAATTTGTGTATAAGTGGTGAATAATAGATTTCGC
 GGTAATCTCACAATATTTCACTCAGATAACTTTGATTGCTGTGTATAAGTAAATCTT
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 50 AAACCGCTCCGCGCTCATTCGCGCGAGCGGGAACTAGAACGTAAATCTAAGAAAC
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 55 AGTCCGAGATTCTGGATTCCCACTTTCTGTGGAAATGACGGGATTTAGGTTTCTGATTTT
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 CGGGAATGACGAATCCATCCATACGAAAACCTGCACCACGCTATTTCCACGAACTACAT
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 50 TCCATAATTGGAAGGAAATGCTCARGCTTACGCCCATCGCATTATGCAATGTATTGAC
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5 T T C C G T G C G G A T G G C T T C G T C A T T C C C G C G A G G C G G A A T C C A G C C T T G T T G G T A C G G A
A A C T T A T C C G G G A A A A C G G T T T C T T G A G A T T T A C G T T C T G G A T C C C A C T T T C G C G G G A A
T G A C G C G G T G C A G G T T T C C G A T G G A T A G C T T C G T C A T T C C C G C G A G G C G G A A T C C A G
C T C T G T C G G C A C G G A A A C T A T C G G G T A A A A G G T T T C T T G A G A T T T T C T G C T C G G A T
10 G C C A C T T T C G T G G G A A T G A C G G A T G T A G G T T C G T G G G A A T G A C G G T T T A G G T A T T T T A
T A G A A A C C G G T A G G T G G T G T T C T A T G C A A A C G A C A G A T G A A T C A T C G C G G A G G T G T A C
G G A C G G T G C T T G T G T C G A T T T T G C G T G C C G G T G C G G C G G C G T A A C G C G C T G C T G T
T T G G C C T G T C G G C G C G T A A C C G G C A G T C C G C A G A A C C A T T T A C C G A A C C G G C T T A
C G C T T G C C C A C A G G G A G A G T T T T T G C C T T G A T T T C G T T G T T A C G T T G C T T G A A G C C
15 A T T T G G G C G G T A A C G A C G C G T T T T G A C T T C A A C G C T T T A A C A T A T T T G C C T T T G A T G
T C G G C G A G G T T G C C A C C G C G G C A G A A C T G T T G T T G C C G G G C A T T C G C C G T G A T T C A G G
T A A T A C T C T G T A C G C G T G A T T T T T G A C C T T C A G C C A A A A G A A T G G C T T C G T C A T T C C G C
C G C A G G C G G G A A T C T A G G T C T G T C G G C A C G A A A C T A T C G G G A A A A C A G T T T C T T G A G A
T T T T G C G T T C T G G A T T C C C G C T T C G C G G A A T G A C G G A T T A A A G T T C A A A A T T T A T T
20 C T A A A T A A C T G A A A T T C A A C G A A C T A G A T T C C A C T T T C G T G G G A A T G A C A A A T T T A G G
T T G C T G T T T T T G T G G G A A T G A T G A A A T T T A A G T T T A G G A A T T T A C G A A A A A C A G A A
A C C G C T C C G C G C A T T C C C G C G A G G C G G A A T C A G C C T C G T C G G T A C G G A A A C T A T
C G G G T A A A A A G G T T T C T A G T T T G G T G C A T T T T C T T G C A T G C T G T T A C G C G C A G G
T G C T T G G T G C A T C T G C T T G C C G T T G G C G G C G T G C G C C T T G A C G C G C T C G C G C G T G
25 G C G T T G T C G C G C T T A A C C G C T G T C G T A G A A C C A T T T A C C G A A C C G C T T T A C G C C T T G
C C C A C A G G A G A G A T T T T T G C C T T G A T T C T T G T T A C G C G C T T G A A A G A A T T G G
C G G G T A A C A G C G C C G T T T T T G A C T T C A A C T T T C T C A A C A T A T T T G C C T T T G A T G T T G C G
G A G G T T G C A C C G C G G C A G A A C T G T T G T T G C C G G G C A T T C G C C G T G A T T C A G G T A A T A C
T C G G T G A C G G C T G A T T T T T G A C C T T C A G C C A A A A G A A T G G C T T C G T C A T T C C C G C G C A G G
30 C G G A A C T A G A C C T T A G A A C A A C A G A A T A T T C A A A G A T T A T C T G A A A G T C C G G A T T C
T A G A T T C C C A C T T T C G T G G G A A T G A C A A T T T A G G T T G C T G T T T T G G T T T C T G T T T
T G A G G A A T G A T G A A A T T T A A G T T T A G G A A T T A T C G A A A A A A C A G A A A C C C C C G C
C G C T C A T T C C C G C A G C G G G A A T C A G C G T C T G C G T A C G G A A A C T A T C G G G T A A A A
C G G T T C T C T A G T T T G G T G C A T T T C T T G C G T G C T G T T A C G C G C A G G T G C T T G G T G
35 T T A G T G T T G C G G T G C C C T T G C C G T G G C G G C G T G A C G C G T C G C T T T G G C T T T G T C G
C G C G T A A C C G G C T G T C C G C A G A A C C A T T T A C C G A A C C G T T T G A C G C T T G G C C A C A G G
G A G A G T T T T T G C C T T T G A T T T C G T T G T T A C G T T G C T T G A A G C C A T T T G G C G G T A A C G
A C C G C G T T T T G A C T T C A A C G C T T T A A C A T A T T T G C C T T T G A T T C A G A G A G G T T G C C
A C G C C G C A G A A C T G T T G T C C C G G G C A T T C G C C G T G A T T C A G G T A A T A C T C G G T A A C G
40 G C T G A T T T T G A C C T T C G A C A A A A G G A T A G C T T C G T C A T T C C C G C G A G C G G G A A T C C
A G C C T T T C G G T A C G G A A C T A T C G G G T A A A A C G G T T C T T T A G A T T T T G C G T T C T G G A
T P C C A C T T C G T G G G A A T G A C G G A T T A A A G T T T C A A A A T T A T T C T A A A T A A C T G A A A
C T C A A C G A A C T A G A T T C C C G C T T T G C G G A A T G A C G A A T T T A G G T T T C G T T T T G G G T
T T T C T G T T T T G A G G A A T G A T G A A A T T T A G G T T T C T G T T T T G G T T T C T G C T C G C C T G T
45 G G A A T G A T G A A A T T T A A G T T T A G G A A T T T C G T G A A A A A A C A G A A A C C G C T C G C C G
T C A T T C C C G C G A G G C G G A A T C A G C C T C T G C G T G C G G A A C T A T C G G G A A A C G G T
T C T T T A G A T T T A C G T T C T G A T T C C T A C T T T C G T G G G A A A G A C G A A T T T A G G T T T C T
G T T T T T G T T T C T G T C C T T G T G G G A A T G A T G A A A T T T A A G T T T A G G A A T T A T C G G A
A A A A A C A G A A A C C G C T C G C C G T C A T T C C C G A A A A G C G G G A A T C C A G C C T C G T C G G T G
50 G G A A A C T A T C G G G T A A A A A G T T T C T T A G T T T G T G T C G A T T T T G T C G G T G C C G G T G G
C G G C G C A A C G T C G T C T T T G C G T T G T C G G C G C G T A A C C G G C T G C C G A G A A C A T T
T A C C G A A A C C G G C T T G A C G C T T G C C C A C A G G A G A G T T T T T G C C T T G A T T C T G C T G T
T A C G C C G G T G A A A G C A T T G T G C G C T A A C G A C C C G T T T T G A C T T C A A C T T C C T T A A
C A T A T T T G C C T T G A T T G T T G A A A G A T G C C A C G C G G C A T C A T T A A A C C C G T C A
55 T T C C C A C T T C C G T G G A A T G A C G G A T T A A A G T T T C A A A A T T A T T C T A A A T A A C T G A A A
C T C A A C G A A C T A G A T T C C C G C T T T T G C G G A A T G A C G A A T T T A G G T T G C T G T T T T G G T
T T T C T G C C T G C G G A A T G A T G A A T T T A A G T T T A G G A A T T A T C G A A A A A A C A G A A
A C C G C T C C G C G T C A T T C C C G C G A G G C G G A A T C A G C C C T C G T C G G T G C G G A A C A T T
C G G G A A A A C G G T T C T T A G A A T T T T G C G T T C G G A T C C C G C T T C G T G G G A A T G A C G G T
T A G G T A T T T T A T A G A A A G C C G T A G G T G G T T T C T A T G C A A A C G A C A G A T G A A G C G T
60 C G C G A G G T T G A C G C A G G T G C T T G T G T G A T G T T G C G C G C T T T G C G C G C G C G G C
G A C G T G T C G C C T T G C G T C G G T G C G C T A A C C G C T G T C C G A G A A C C A T T T A C C G A

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 15 CCGCAAAAGCGGGAATCTAGAACTCAGGACCGGAGAAACCTTTTACCGGATAAGTTTCC
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 40 CCAATTCGAAGGGATGGTCAGCTTGGCTTGGCGCTTCTTATGCGCGCGAAGCGTT
 GCTCCGACGCTTTGATGACTTGTCCGACCGGAGCGTATGGTCAGCGGTGGCGCGGT
 CGAGGCTGGAGTCGAATTTGGTTGCTTTTTCAGCCAACTGTGTAATGCACGGTAATCT
 CTTTGGCTTTAACTGCTTCTTTTTCGAAGCTTCTGCAAGTCTTCAATAATGCGGCGC
 CCATATTTGCTTTCGTTGCTTGTGGTCAAAACGGCAAGGGTAAACATACCGT

45

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 22>:

gnm_22

AATTAAATAAATATCATTATATTAATATGTACAGATAAATCAAGCCGTTTTTATAGT
 GAATTAAACAAAATCAGGACAAGCGCAGAGCGCAGACAGTACAGATACATTCCGTCAT
 5 TCCCACGAACCTACATCCCGTCATTCCCAACGAACCTGCACACGCTCATTTCCACGAAGT
 GGGATCCAGTTCGTTTCGGTTTCGCTTGTTTTAAAGTTTCGGGTAACTTCTACTTTCGTCAT
 TCCCACGAACCTGCATCCCGTCATTCCCAAGAAAGTGGGAATCCAGGACGCAAAATCTCA
 AGAAACCGTTTTACCTGATAAGTTTCGCGCACTGACAGACCTAGATTCCCGCGCTGCGCGG

AATGACGGGATTGAGATTGCGGCATTATTCGGGAGCAACAGAAGCCGCTCTGCCGTCAT
 TCCCACGAAAGTGGGAATCCAGTTCGTTTCGCTTGTGTTTAAAGTTTCGGGTAACTT
 CCACCTCTGTCATTCCACGAAAGTGGGAATCCAGTTCGTTTTCGATTTCAGTCATTTCGGAT
 AATATGCCCTAGCATTGAATGTCTAGATTCCCGCCTCGCGGGAATGACGGATTTTAGGT
 TGGGGGCATTTATGGGAAAGCAGAAACCGCTCCGCGCTCATCCACGGAAGTGGGAA
 TCGAATTCGTTTCGCTTTCGTTTTCGTTTTCGTTTTCGTTTTCGTTTTCGTTTTCGTTT
 5 CGAACCTACATTCCGTCATTCCACGAAAGTGGGAATCCAGTTCGTTTCGTTTTCGTTTTCGTTT
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 10 ACTGACAGACCTAGATTCCGCGCTTATATGATGCGCTCTATCAAGGGGCGCATTAATTT
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 15 GGTATGGTTTGGTCTTTTTTGTGTGATCTTTAAAGTTTTCGAGGATTTCGCTTTCGTTTCG
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 CTAACAGGGGGGAGCGAAATTTAAACCAATTTCAAGATAGTGAACGAATGAGTGAAG
 TTGAATATTTCTCACACTTTATATCGGACGGAAGGGAAGCTTTAGAAATTCGCGAGC
 GAAGAGGTAAGCAAGACGGGTTTTTGTGATTGATTTTCATTCACATCCATGAAGATA
 20 CTTTACTGAAAGTTTCGGTTGCCCTTTATTTTCGTATGCTGAATACATGATATGATTTAA
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 ACAATTTCTGTAATCCATGTATAGGTTTAGGTTTCGATGATGTTGATTATGAGAGGTGCG
 ATTTTCGAGAGTTCAGCGCAATCTGTTTATGTTAGTTGAAAGGTACTGGTTTCAGCGTTG
 CAAGTCCGGGTTGGGAGTTGAGGCTAAGCAGTTTTCGATGATTGATGAAGGACAGAA
 25 TAACCGCAATTGACCTAGCATCTGATTTTTCGATGGAGAGTACACGCGGATCAGGCGT
 TGTGTAGTACAGATAATGGTTTTTTGATAACAGCAATCAAGGCCGAATCTGAAACGA
 TTGACCGCTGTCGCGAATGAGGACGGGACGGCAGACATTTTATGATGTCGAGTCCCAAG
 AAAATTCGCTTTTTCGTTTATGAGAAGGACGGCAGCTTCGAGATAAGGAAAGCA
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 30 TAATAAATCAGGGTTCGTATTTCTGTTGAGCTTTTCCAATTTAGAAAAATTTAAAAATA
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 35 AACAGCCGGATATTGATTGGAATTTGAACCTTGATGAATTTGGGGTTTATGCTTTTAAAA
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